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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,127	01/24/2002	Byron Hua Chen	14-8	2620

7590 11/26/2004

Docket Administrator (Room 3J-219)  
Lucent Technologies Inc.  
101 Crawfords Corner Road  
Holmdel, NJ 07733-3030

EXAMINER
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PEREZ GUTIERREZ, RAFAEL

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 11/26/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/056,127

Applicant(s)

Chen et al.

Examiner

Rafael Perez-Gutierrez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 January 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,14-16 and 19 is/are rejected.
- 7) ☒ Claim(s) 2,3,5-13,17,18 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 May 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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## DETAILED ACTION

### *Drawings*

1. The formal drawings received on May 7, 2003 are accepted by the Examiner.
2. The drawings are objected to because of the following minor informality: On **figure 3**, the arrow labeled **d(TA\_up)** must be further extended to the outer circle as shown in the original drawings filed in the application.
3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office Action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended". If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the Examiner, the Applicant will be notified and informed of any required corrective action in the next Office Action. If a response to the present Office Action fails to include proper drawing corrections, corrected drawings or

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arguments therefor, the response can be held **NON-RESPONSIVE** and/or the application could be **ABANDONED** since the objections/corrections to the drawings are no longer held in abeyance.

***Claim Objections***

4. **Claims 5, 6, and 16** are objected to because of the following informalities:
- a) On line 7 of claims 5 and 6, replace “position” with --location-- after “candidate”; and
  - b) On line 7 of claim 16, replace “belts..” with --belts.-- after “advance”.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office Action:

A person shall be entitled to a patent unless -- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1, 4, 14-16, and 19** are rejected under 35 U.S.C. 102(e) as being anticipated by **Carlsson (U.S. Patent Application Publication # 2003/0119524 A1)**.

Consider **claim 1**, Carlsson clearly shows and discloses a method of determining a

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position (location) of a mobile terminal 80 (station) comprising the steps of:

determining a set of candidate locations for the mobile terminal 80 (station) based on a timing advance value associated with the mobile terminal 80 (station) (abstract, figures 5-7, and paragraphs 0003 and 0032-0035);

determining a position (location) of the mobile terminal 80 (station) using the set of candidate locations and signal strength measurements associated with same cell-neighboring sectors or different cell-neighboring sectors (figures 5-7 and paragraphs 0032-0035).

Consider **claim 4**, and **as applied to claim 1 above**, Carlsson further discloses that the step of determining the position (location) of the mobile terminal 80 (station) using the set of candidate locations comprises the step of:

determining a subset of candidate locations from the set of candidate locations using the signal strength measurements associated with the same cell-neighboring sectors (figures 5-7 and paragraphs 0032-0035); and

determining the location of the mobile-station using the subset of the candidate locations and the signal strength measurements associated with the different cell-neighboring sectors (figures 5-7 and paragraphs 0032-0035).

Consider **claim 14**, and **as applied to claim 4 above**, Carlsson also discloses that if there are no non-negligible signal strength measurements associated with sectors of at least two different cells, the position (location) of the mobile terminal 80 (station) is determined to be approximately at an average of the candidate locations belonging to the subset of candidate locations (figures 5-7 and paragraphs 0032-0035).

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Consider **claim 15**, and **as applied to claim 1 above**, Carlsson further shows and discloses that the timing advance value associated with the set of candidate locations being determined is a first timing advance value  $TA_X$  associated with a first serving base station BSS A, the location of the mobile terminal 80 (station) being determined using the first timing advance value  $TA_X$  and a second timing advance value  $TA_Y$  associated with a second serving base station BSS B along with the set of candidate locations and signal strength measurements associated with same cell-neighboring sectors or different cell-neighboring sectors when the second timing advance value  $TA_Y$  is available (figures 5-7 and paragraphs 0032-0035).

Consider **claim 16**, Carlsson clearly shows and discloses a method of determining a position (location) of a mobile terminal 80 (station) comprising the steps of:

forming a first timing advance belt (ring X) using a first timing advance value  $TA_X$  associated with a first serving base station BSS A (figures 5-7 and paragraphs 0032-0035);

forming a second timing advance belt (ring Y) using a second timing advance value  $TA_Y$  associated with a second serving base station BSS B (figures 5-7 and paragraphs 0032-0035);  
and

determining the position (location) of the mobile terminal 80 (station) using the first and second timing advance belts (rings X and Y) (figures 5-7 and paragraphs 0032-0035).

Consider **claim 19**, and **as applied to claim 16 above**, Carlsson further discloses that if the first and second timing advance belts intersect (rings X and Y) at only one point, the location of the mobile terminal 80 (station) is determined to be approximately at the point of intersection (figures 5-7 and paragraphs 0032-0035).

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***Allowable Subject Matter***

6. **Claims 2, 3, 5-13, 17, 18, and 20** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims as well as any corrections the objections made above.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

Manabe (U.S. Patent # 5,423,067) discloses a digital mobile communications system and method for providing intensity/coverage reference maps using base stations and mobile stations; and

Vaara et al. (U.S. Patent # 6,321,083 B1) disclose traffic hot spot locating method.

8. Any response to this Office Action should be **faxed to (703) 872-9306 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

220 S. 20<sup>th</sup> St.  
Crystal Plaza Two, Lobby, Room 1B03  
Arlington, VA 22202

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9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rafael Perez-Gutierrez whose telephone number is (703) 308-8996. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Marsha D. Banks-Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700 or call customer service at (703) 306-0377.



Rafael Perez-Gutierrez  
R.P.G./rpg **RAFAEL PEREZ-GUTIERREZ**  
**PATENT EXAMINER**

November 23, 2004